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Management of laser welding based on analysis informative signals

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Abstract

© Published under licence by IOP Publishing Ltd. Features of formation precision weld of metal were presented. It has been shown that the quality of the welding process depends not only on the energy characteristics of the laser processing facility, the temperature of the surface layer, but also on the accuracy of positioning laser focus relative to seam and the workpiece surface. So the laser focus positioning accuracy is an estimate of the quality of the welding process. This approach allows to build a system automated control of the laser technological complex with the stabilization of the setpoint accuracy of of positioning of the laser beam relative to the workpiece surface.

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